

### ABSTRACT OF THE DISCLOSURE

A distributed network is for use with a general purpose computer having a communications port. The network includes a master controller having first and second communications ports. The first communications port communicates with a general purpose computer. The network includes input/output controllers, having a first communications port for communicating with the master controller and a second communications port for communicating with peripheral devices. The peripheral devices are connected together in a serial daisy chain configuration. The master controller communicates with the input/output controllers via an RS-485 or Ethernet network bus. The master controller also communicates with the general purpose computer via an RS-232, USB, Ethernet, or wireless communication links. The master controller performs protocol management functions including conversion between RS-232 or Ethernet and RS-485,USB, Ethernet, or wireless protocols, error correction and detection, bus arbitration and data buffering.

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